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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/673,106	11/28/2000	Francois Grieu	677-18	7675

7590   01/03/2005

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EXAMINER
MOORTHY, ARAVIND K

ART UNIT	PAPER NUMBER
2131	

DATE MAILED: 01/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 December 2004*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All b)☐ Some * c)☐ None of:

   1.☒ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   Paper No(s)/Mail Date. _____ .
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)   5) ☐ Notice of Informal Patent Application (PTO-152)
   Paper No(s)/Mail Date _____ .   6) ☐ Other: _____ .

DETAILED ACTION

1. Claims 1-13 are pending in the application.

2. Claims 1-13 have been rejected.

Response to Amendment

3. The examiner approves the retyped abstract.

4. The examiner approves the added headings and subheadings to the specification.

Response to Arguments

5. Applicant's arguments, see pages 8-14, filed 7/6/04, with respect to the rejection(s)of claim(s)

1, 4, 5 and 11-13 under USC 102(e) have been fully considered and are persuasive. Therefore,

the rejection has been withdrawn. However, upon further consideration, a new ground(s) of

rejection is made in view of Drupsteen et al.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999

(AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA

35 U.S.C. 102(e)).

**6. Claims 1, 4, 5 and 11-13 are rejected under 35 U.S.C. 102(e) as being anticipated by
Drupsteen et al U.S. Patent No. 5,856,659.**

As to claim 1, Drupsteen et al discloses a method of modifying the content of the

non-volatile memory of a microcircuit card, in particular a contactless microcircuit card, wherein

the card is temporarily coupled to a terminal while a transaction is being executed, in particular a

remote ticketing transaction, the transaction including the terminal applying to the card a

plurality of modification commands, each command comprising at least one operation of

recording in the card memory a respective data item designated by the command, the various

data items recorded in this way being mutually interdependent, the method comprising the steps

of:

a) on receiving corresponding respective commands from the terminal,

modifying the contents of the card memory by provisionally recording in the card

memory each of the interdependent items of information without losing prior

values corresponding to the items [column 5, lines 33-47]; and

b) finalizing the modifications to the card memory by one of confirming

all of the modifications and by discarding all of the modifications, wherein for

subsequent operations, the commands executed in step a) will either all have been

taken into account, or else all of them will be without effect [column 5 line 48 to

column 6 line 4].

As to claim 4, Drupsteen et al discloses an in-session mode. Drupsteen et al discloses an out-of-session mode in which the makings of recordings are not confirmed [column 6, lines 20-37].

As to claim 5, Drupsteen et al discloses an authentication function combined with the function of finalizing step [column 5 line 48 to column 6 line 4]. Drupsteen et al discloses data to be discarded in the event of authentication failing [column 5 line 48 to column 6 line 4].

As to claim 11, Drupsteen et al discloses an optional inhibit attribute that if the card executes such a command in-session the modifications performed by the command take effect independently [column 5 line 48 to column 6 line 4].

As to claim 12, Drupsteen et al discloses that the terminal executes an action following confirmation by the card [column 6, lines 49-63]. Drupsteen et al discloses that in the event of the action being properly performed by the terminal, ratification information is recorded in the card suitable for subsequent accessing by reading [column 6, lines 49-63].

As to claim 13, Drupsteen et al discloses that the recording command is an implicit command [column 5, lines 33-47]. Drupsteen et al discloses that any command received by the card is interpreted as an order for recording ratification information in the card [column 5, lines 33-47].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

7.   **Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over**

Drupsteen et al U.S. Patent No. 5,856,659 as applied to claim 1 above, and further in view

of Fujisaki U.S. Patent No. 4,877,945.

As to claims 2 and 3, Drupsteen et al does not teach a flag confirming proper execution is

recorded in the memory of the card.   Drupsteen et al does not teach that when the card

subsequently receives a command requiring at least one of the data items written or the value

corresponding thereto to be read and/or modified. Drupsteen et al does not teach that the card

begins by examining the state of the flag, and if it has not been recorded, the card ignores or

cancels the provisional recordings previously made and executes the command on the basis of

the prior values corresponding to the data items. Drupsteen et al does not teach that when the

card examines the state of the flag, and if the flag has been recorded, the card executes

operations for copying the provisional writes.

Fujisaki teaches a flag confirming proper execution is recorded in the memory of a card.

Fujisaki teaches that when the card subsequently receives a command requiring at least one of

the data items written or the value corresponding thereto to be read and/or modified, the card

begins by examining the state of the flag, and if it has not been recorded, the card ignores or

cancels the provisional recordings previously made and executes the command on the basis of

the prior values corresponding to the data items. Fujisaki teaches that when the card examines the state of the flag, and if the flag has been recorded, the card executes operations for copying the provisional writes [column 2, lines 10-56].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Drupsteen et al so that a flag confirmed proper execution was recorded in the memory of the card. When the card subsequently received a command requiring at least one of the data items written or the value corresponding thereto to be read and/or modified, the card would have examined the state of the flag, and if it had not been recorded, the card ignored or cancelled the provisional recordings previously made and executed the command on the basis of the prior values corresponding to the data items. When the card examined the state of the flag, and if the flag had been recorded, the card executed operations for copying the provisional writes.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Drupsteen et al by the teaching of Fujisaki because it lets the operator know that data recording in the memory is hindered and it excludes erroneous recording on the card [column 1 line 65 to column 2 line 2].

8.   Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drupsteen et al U.S. Patent No. 5,856,659 as applied to claim 1 above, and further in view of Ohashi et al U.S. Patent No. 5,761,309.

As to claims 7 and 9, Drupsteen et al does not teach that when the card receives from the terminal commands for modifying the content of the memory that it includes verification of a cryptographic certificate. Drupsteen et al does not teach that the verification is performed if the

command is received out-of-session, and it is not performed if the command is received in-session.

Ohashi et al teaches when a card that receives from the terminal commands for modifying the content of the memory that it includes verification of a cryptographic certificate. Ohashi et al teaches that the verification is performed if the command is received out-of-session, and it is not performed if the command is received in-session [column 6, lines 13-40].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Drupsteen et al so that when a card that received from the terminal commands for modifying the content of the memory that it included verification of a cryptographic certificate. The verification would have been performed if the command was received out-of-session, and it was not performed if the command is received in-session.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Drupsteen et al by the teaching of Ohashi et al because it provides a high level of confidentiality when secret information is transmitted [column 1 line 61 to column 2 line 7].

9. **Claims 6, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drupsteen et al U.S. Patent No. 5,856,659 as applied to claim 1 above, and further in view of Vanstone U.S. Patent No. 6,178,507 B1.**

As to claims 6, 8 and 10, Drupsteen et al does not teach that the authentication is performed by the card that authenticates the terminal and/or the data interchanged between the terminal and the card. Drupsteen et al does not teach the card checking a cryptographic

certificate produced by the terminal and transmitted to the card, and confirming the modifications only if the certificate is recognized as being correct. Drupsteen et al does not teach that the authentication is performed by the terminal that authenticates the card and/or the data interchanged between the terminal and the card. Drupsteen et al does not teach that the card produces and transmits a cryptographic certificate in conditional manner to the terminal, if and only if the modifications have been confirmed.

Vanstone teaches mutual authentication between a terminal and a smart card using certificates [column 3 line 37 to column 4 line 37].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Drupsteen et al so that the terminal and the smart card would have mutually authenticated themselves before an transaction took place.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Drupsteen et al by the teaching of Vanstone because it ensures that transactions take place on a trusted smart card as well as a trusted terminal.

Conclusion

10.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aravind K Moorthy whose telephone number is 571-272-3793. The examiner can normally be reached on Monday-Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aravind K Moorthy
December 21, 2004

EMMANUEL L. MOISE
PRIMARY EXAMINER